

## Assignment 6

Due: 22/11/2018

The following VARs models:

$$Y_t = A_0 + A_1 Y_{t-1} + \epsilon_t$$

where:  $Y_t = \begin{pmatrix} rspot_t \\ rfuture_t \end{pmatrix}$ ,  $A_0 = \begin{pmatrix} a_{10} \\ a_{20} \end{pmatrix}$ ,  $A_1 = \begin{pmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{pmatrix}$ ,  $\epsilon_t = \begin{pmatrix} e_{1t} \\ e_{2t} \end{pmatrix}$

From the data set assign04.dta:

### Requirements:

1. Estimate VARs models using spot return (*rspot*) and future return (*rfuture*) as endogenous variables and determine the most appropriated lags models using SBIC.
2. Perform stability test and Granger exogeneity test.
3. Perform Impulse response analysis and determine which variable has more impact.
4. Perform Forecast error variance decomposition and determine variable that has more impact on each endogenous variable.